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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/051,450 | 01/17/2002 | Daniel M. Gruen | 3330/61 | 6982 |
| 29858 | 7590 | 02/10/2005 | EXAMINER | |
| BROWN, RAYSMAN, MILLSTEIN, FELDER & STEINER LLP | | | ZHU, JERRY | |
| 900 THIRD AVENUE | | | ART UNIT | |
| NEW YORK, NY 10022 | | | PAPER NUMBER | |
| | | | 2121 | |

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/051,450 | Applicant(s) GRUEN ET AL. | |
| | Examiner Jerry Zhu | Art Unit 2121 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

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Claim 11^{is} objected to because of the following informalities: typographical error on "sin". Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

the invention as disclosed in claims 1-18 is directed to non-statutory subject matter.

1. Claims 1-9 are method claims whose steps are not required to be practiced on a computer, electronic devices, electrical machines, mechanical apparatus, or any concrete or tangible instrument or equipment. These steps are considered abstract procedures manipulating abstract concepts. Therefore, it is considered that these claims are not limited to practice in the technological arts. These claims are not considered to be statutory.

Claims 10-18 use a computer to execute method claims 1-9. However, merely claiming nonfunctional descriptive material stored in a computer-readable medium does not make the invention eligible for patenting. The examiner believes that

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method claims could be executed by using pencil and paper in its simplest case without necessarily using a computer. Further more, a computer readable media does not specify that the media is physical and permanent but could be a carrier wave that is fleeting. Therefore, these claims are not considered to be tangibly embodied in the useful arts. Applicants should note that the specification is not considered to provide any limit on the scope of the word "media".

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Agrawal, U.S. Patent Number 6,094,651 (Agrawal). Specifically:

Claim 1

3. Agrawal discloses a method for recognizing and flagging data item (col.1, lin.29-37, data items are data cells stored in the multiple dimensional database) by one or more application programs (col.1, lin.21-28) as falling within the scope of rule (col.1, lin.37-45; the use of attributes ^{implies} ~~impose~~ rules are used to place the data into groups based on the particular attributes) but anomalous when compared with other data items within the scope of rule (col. 2, lin.38-43) comprising:

- Determining a collection to which the data item belongs as defined by rule (col.4, lin.47-52; areas of data cube is the collection and the rule is the measure based on Self-Exp value)

Pls.
2/8/05

- Calculating statistics for the other data items in the collection (col.3, lin.1-6; the expected value, such as Self-Exp value, is the statistics)
- Identifying whether the data item is an anomalous data item based on the statistics calculations (col.2, lin.38-43)
- Flagging anomalous data item as anomalous (col.4, lin.47-52; a cell with a anomalous Self-Exp value is highlighted with a color.)

Claims 2-7

4. The step of calculating statistics further comprising:

- (claim 2) calculating a mean data item size and standard deviation for the other data items in the collection (col.3, lin.16-20).
- (claim 3) calculating a mean interval between data items and standard deviation for the other data items in the collection and (claim 4) calculating a mean data item arrival time and standard deviation for the other data items in the collection

(col.9, lin.63-67. Data items have time dimension that contribute to the value of cell data. The meaning of time is open for explanation that would have included interval between data and mean data arrival time. Therefore statistics calculation as indicated above claim 2 also applies with respect to time value of the data)

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- (claim 5) calculating a presence or absence of keywords for the other data items in the collection and identifying whether the data item is an anomalous data item based on the presence or absence of keywords. (col.2, lin.43-53; keywords would have been a part of a composite value of data subject to statistics calculation as illustrated in claim 1)
- (claim 6) calculating statistics for the other data items in the collection is performed in real time (col.1, lin.21-35; On-Line in OLAP means seven days a week, 24 hours a day, sixty minutes an hour and sixty seconds a minute and OLAP data cubes are used for interactive exploration of data. Hence real time.)
- (claim 7) calculating statistics is performed periodically (col.1, lin.24-28; the users can use OLAP any time and they would have used it periodically)

Claims 8, 9

5. (claim 8) The step of identifying in claim 1 comprises determining whether the data item falls outside a number of standard deviations from statistical calculations (col.6, lin.38-42).
6. (claim 9) A user can set the number of standard deviations (col.4, lin.11-18; the user interface based on Microsoft Excel as front end for user-interaction allows user to set values of data such as standard deviation)

Claims 10-18

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7. Claims 10-18 correspond to claims 1-9 respectively by using a computer to implement the method steps in claims 1-9. Therefore claims 10-18 are rejected under the same rationale as cited in the rejection of rejected claims 1-9 respectively. Agrawal also teaches the implementation of the method for recognizing and flagging data item using program storage device and a machine that embody a program of instructions executed by the machine for the performing the method. (col.3, lin21-30)

Conclusion

Martin discloses a device for data analysis and organization that classify data into table rows and columns using statistical analysis tools to perform statistical queries.

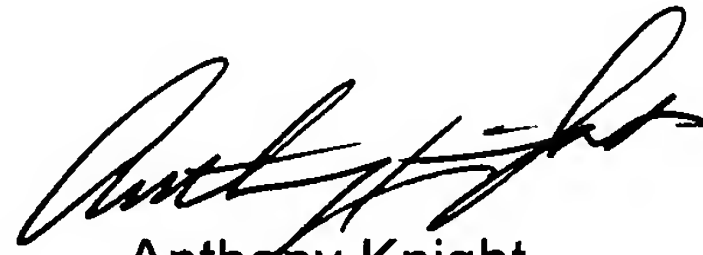
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry Zhu whose telephone number is (571) 2724237. The examiner can normally be reached on 8:30 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (571) 272-3687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jerry Zhu
Examiner
Art Unit - 2121
1/31/2005



Anthony Knight
Supervisory Patent Examiner
Tech Center 2100